REMARKS

This is a full and timely response to the final Official Action mailed February 10, 2003 (Paper No. 6) and the Advisory Action of May 16, 2003 (Paper No. 9). Reconsideration of the application in light of the following remarks is respectfully requested. Claims 1-15 and 18-26 are currently pending for the further consideration.

With regard to the prior art, the final Office Action rejected claims 1-6 and 18-26 as anticipated under 35 U.S.C. § 102(b) by U.S. Pat. No. 5,220,602 to Robbins et al. ("Robbins"), and claims 7 and 10-15 as unpatentable under 35 U.S.C. § 103(a) over Robbins. This rejection was traversed in Applicant's first after-final response.

Claim 1 recites:

> For use in a cable television converter terminal, a passthrough circuit for passing a tuned signal from a tuner to a radio frequency modulator for output to external equipment, the passthrough circuit arrangement comprising:
>
> a first signal path, arranged to receive the tuned signal from the tuner and to provide a NICAM signal component of the tuned signal to the radio frequency modulator; and
>
> a second signal path, arranged to receive the tuned signal from the tuner and to provide at least one other signal component of the tuned signal to the radio frequency modulator.

The issue is whether Robbins teaches the claimed radio frequency modulator. According to the final Office Action, Robbins teaches the claimed "first signal path" by teaching a path from a tuner (12) to a SAW filter (26) to a NICAM filter (48) and then to a "modulator" (i.e., "summing circuit" 62). In making this argument, the final Office Action attempts to characterize the "combiner" or "summing circuit" (62) (Col. 4, lines 12-13 and line 65) as a "modulator." Applicant has argued and will further demonstrate that this is clearly improper.

To rename the "summing circuit" (62) as a "modulator" is a misreading of the teachings of Robbins and is a misuse of the term "modulator" as it is defined in Applicant's specification

and understood in this art. One of skill in the art would never consider the "summing circuit" (62) taught by Robbins as the "modulator" recited in claim 1. Applicant's specification makes clear the definition and function of a modulator. "A radio frequency modulator receives the NICAM output signal and the non-NICAM signal components and upconverts them to a radio frequency output signal provided to the external video equipment." (Spec., para. bridging pages 9 and 10. *See also*, p. 13).

According to the Advisory Action, the "summing circuit" taught by Robbins performs such a conversion and may, therefore, be referred to as a modulator. "Robbins discloses [] a summing circuit 62 to combine modulated video and audio signals and modulated NICAM signal to provide RF output signal to a video appliance such as a television or video recorder (col. 4/lines 59-67). Although Robbins does not call item 62 as a modulator, but it serves the same function as a RF modulator in addition to the mixing function because if it does not doing so, it can not provide RF output signals to a television or a video recorder as disclosed." (Paper No. 9, p. 2). This is incorrect and a misreading of the teachings of Robbins.

Robbins makes perfectly clear that the conversion to baseband, the frequency used by a video appliance, is not performed by the summing circuit 62, but is performed by other circuitry. According to Robbins, "[a] television signal including a NICAM digital audio subcarrier is converted to baseband and the NICAM subcarrier is filtered therefrom. The video and analog audio portions of the baseband television signal are demodulated. The demodulated video is descrambled and the demodulated analog audio is descrambled and/or volume controlled. The demodulated video and analog audio signals are then remodulated onto respective video and analog carriers. The filtered NICAM digital audio subcarrier is mixed with the video carrier to provide a modulated NICAM carrier. *The remodulated video and analog audio signals are combined with the modulated NICAM carrier [by the summing circuit 62] for output to a video appliance such as a television or video recorder.*" (Abstract) (emphasis added).

Thus, it is clear that the conversion to "baseband," the frequency used by video appliances, occurs far before the signals are combined in the summing circuit 62. The Advisory Action does not indicate how or where Robbins teaches or suggests that the summing circuit 62

performs some modulation or conversion function. Such a teaching does not exist in Robbins. Therefore, contrary to the allegations in the Advisory Action, the summing circuit 62 *does not* perform any conversion or modulation of signals and *cannot* be properly called a "modulator."

Consequently, the attempt to characterize the Robbins "summing circuit 62" as a "modulator" is a clear misreading of Robbins and an impermissible twisting of the definition of a "modulator" as expressly defined in Applicant's specification and as commonly defined in this art. Once it is understood that the "modulator" taught by Robbins is the "video and audio modulator" (58) and *not* the "summing circuit" (62), it becomes clear that Robbins fails to teach or suggest "a first signal path, arranged to receive the tuned signal from the tuner and *to provide a NICAM signal component of the tuned signal to the radio frequency modulator.*" (emphasis added).

Robbins teaches a signal path for a NICAM signal output by the NICAM filter (48). However, this signal path does not include a "radio frequency modulator" and does not "provide a NICAM signal component of the tuned signal to [a] radio frequency modulator" as claimed. The modulator (58) taught by Robbins receives only the monaural, non-NICAM audio signal through filter (42). (*See* Fig. and Robbins, col. 4, lines 19-23). Consequently, Robbins fails to teach or suggest a signal path for providing a NICAM signal to a radio frequency modulator as recited in claim 1.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Consequently, for at least this reason, the rejection based on Robbins of claim 1, and all claims that depend from claim 1, should be reconsidered and withdrawn.

Claim 11 recites

> For use in a cable television converter terminal, a passthrough circuit for passing a tuned signal from a tuner to a radio frequency modulator for output to external equipment, the passthrough circuit arrangement comprising:

a NICAM surface acoustic wave filter, coupled to receive the tuned signal from the tuner and configured and arranged to pass a NICAM signal component of the tuned signal and to substantially reject non-NICAM signal components of the tuned signal;

a mixer, coupled to receive the NICAM signal component passed by the NICAM surface acoustic wave filter, and configured to downconvert the NICAM signal component to a baseband NICAM IF frequency; and

a low pass filter, coupled to receive the downconverted NICAM signal component from the mixer and configured and arranged to attenuate mixer harmonics from the downconverted NICAM signal and to provide a NICAM output signal to the radio frequency modulator.

In contrast, Robbins fails to teach or suggest all of the elements of claim 11. Reference is made to Applicant's first after-final response.

Claim 1 recites a NICAM surface acoustic wave (SAW) filter. Robbins teaches a NICAM filter (48), but fails to teach or suggest a NICAM filter that is also a SAW filter.

In the Advisory Action, it is argued that the NICAM SAW filter of claim 1 is met by the combination of SAW filter (26) and NICAM filter (48) of Robbins. Even if this reading of Robbins is adopted, Robbins cannot teach or suggest the features of claim 11.

Specifically, claim 11 recites that the output of the NICAM saw filter is provided to a mixer which downconverts the NICAM signal to baseband. According to the Advisory Action, mixers (32) and (40) perform this function. (Paper No. 9, p. 2). However, the mixers (32) and (40) are located *between* the SAW fitler (26) and the NICAM filter (48). Therefore, Robbins fails to teach or suggest a NICAM SAW filter which *then* provides an output to a mixer for downconverting to baseband as recited in claim 11.

Further, Robbins also fails to teach or suggest the claimed low pass filter which receives the output of the mixer. There is no low pass filter taught by Robbins that receives the output of the NICAM filter (48) or any of the mixers.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). Therefore, because Robbins fails to teach or suggested the claimed "mixer" or the claimed "low pass filter," the rejection based on

Robbins of claim 11, and all claims that depend from claim 11, should be reconsidered and withdrawn.

Claim 18 recites: "A method of processing a television signal comprising filtering an output of a tuner with a surface acoustic wave filter to separate a NICAM audio signal from said output of said tuner." Similarly, claim 23 recites "A system for processing a television signal comprising: means for tuning a selected channel signal from an incoming television signal; and means for filtering said channel signal with a surface acoustic wave filter to separate a NICAM audio signal from said channel signal."

In contrast, Robbins fails to teach or suggest a surface acoustic wave (SAW) filter that separates a NICAM audio signal from the output of a tuner. Robbins does teach a SAW filter (26). However, this SAW filter (26) does *not* separate a NICAM audio signal as claimed. Rather, Robbins teaches a separate NICAM filter (48) for separating a NICAM audio signal.

The final Office Action attempts to argue that the "NICAM intercarrier filter 48 [is] acting and performing [the] same function as a NICAM SAW filter." (Paper No. 6, p. 5). This is not true and is not supported by the teachings of Robbins. There is no evidence in Robbins or otherwise that the NICAM filter (48) is a NICAM SAW filter or in any way operates like a SAW filter. Obviously, the drafter of the Robbins reference knew what a SAW filter is as evidenced by the inclusion of a SAW filter (26) in another part of the circuit. If the NICAM filter (48) were a NICAM SAW filter, the drafter of Robbins would have so indicated.

In short, Robbins does not teach or suggest a NICAM filter that is also a SAW filter and is used to separate a NICAM audio signal using surface acoustic wave filtering. Claim 18 clearly recites "a surface acoustic wave filter [used] to separate a NICAM audio signal." Claim 23 recites similar subject matter.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Consequently, for at least this reason, the

rejection based on Robbins of claims 18 and 23, and all claims that depend from claims 18 and 23, should be reconsidered and withdrawn.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper which have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

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